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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,179	02/19/2004	Ekrem Oran	HIT-131J	4497
7590	07/21/2005		EXAMINER	
Iandiorio & Teska 260 Bear Hill Road Waltham, MA 02451-1018			GLENN, KIMBERLY E	
			ART UNIT	PAPER NUMBER

2817

DATE MAILED: 07/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SM

Office Action Summary	Application No. 10/782,179	Applicant(s) ORAN, EKREM	
	Examiner Kimberly E. Glenn	Art Unit 2817	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8, 13, 16 and 17 is/are allowed.
- 6) ☒ Claim(s) 9, 11, 14, 15, 18 and 19 is/are rejected.
- 7) ☒ Claim(s) 10 and 12 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/15/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

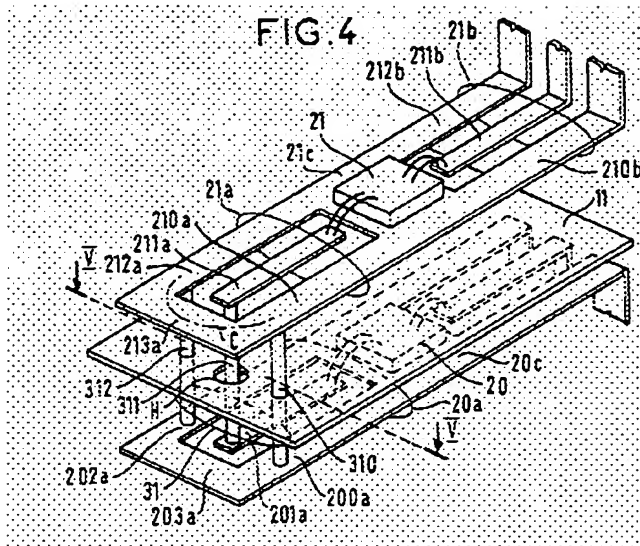
The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 9 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Tronche et al US Patent 5,917,388.

Tronche et al in figure 4, a package comprising of a dielectric layer 14 having a upper and lower ground planes, (21c and 20c), a circuit 21 is located on the upper ground plane 21c and inherently includes an connecting contact on the top surface of the circuit; a first transmission line 211a disposed on the upper surface of the dielectric layer 14, the one of end of the first transmission line is connected to wires from the circuit while the opposite end is connected to a via 311 which connects the first transmission line 211a to a second transmission line 201a. The second transmission line disposed on the lower surface of the dielectric layer. Examiner considers this end of the transmission line closets to the circuit to be the bonding end of the transmission line while the end furthest from the circuit to be the transitioning end. The upper and lower ground planed are connected to each other be means of vias 310 and 312 which define opposing walls on either side of the first and second transmission line for signal isolation.



The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

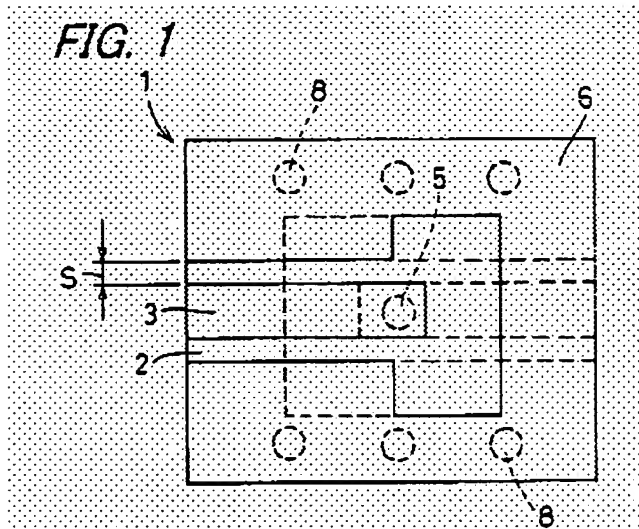
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 14 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Shirasaki US Patent 6,873,230.

Shirasaki disclose in figures 1 and 2, a dielectric substrate 2 having a upper surface ground plane 6 electrically connected to a lower surface ground plane 7; a first transmission line 3 disposed on the upper surface of the dielectric substrate and a second transmission line 4 disposed on the lower surface of the dielectric substrate. The first and second transmission lines are connected to each other by means of a via

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5. The upper surface ground plane is connected to the lower surface ground plane by means of vias 8. The ground planes surround the transmission lines entirely, which provide signal isolation. Examiner considers the end of the transmission line not surrounded by the ground plane to be bonding end.

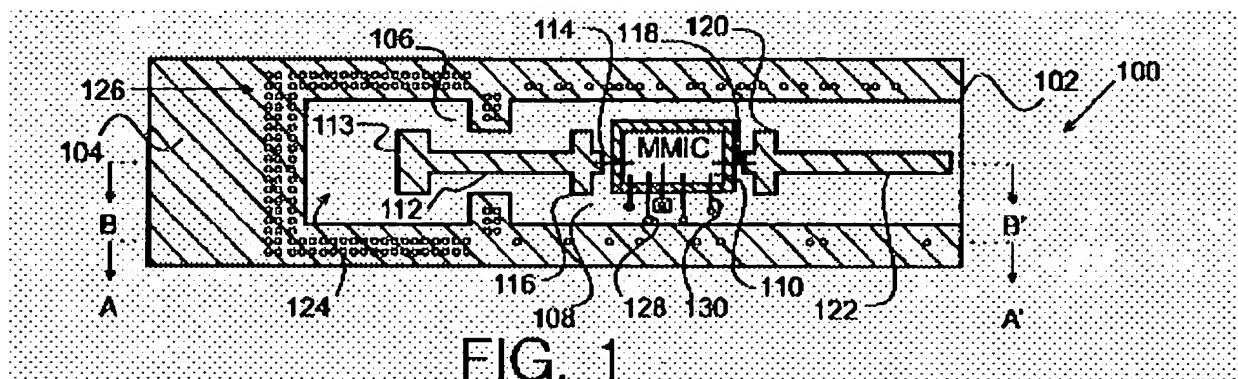


A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 18 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Hung et al US Patent 5,982,250.

Hung et al disclose in figure 1, a package disclosing a MMIC located on a ground structure; a transmission line including a bonding pad 116 isolated from the ground structure 104, a MMIC pad 110 on the MMIC; a wire bond extending between the MMIC pad and the bonding pad and the ground structure including opposing member on either sided to of the transmission line for signal isolation. (Column 4; lines 1-37)



Allowable Subject Matter

Claims 1-8, 13, 16 and 17 are allowed.

Claims 10 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: With regard to claims 1-8, 10, 16 and 17 the prior art of record does not disclose or fairly teach a low pass filter for compensating wire bond inductance. With regards to claims 12 and 13, the prior art of record does not disclose or fairly teach the lower surface ground plane and the second transmission line terminate proximate an edge of the substrate to facilitate probing.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Fries et al US Patent 5,270,673, Budka et al US Patent 6,759,742, Johnson et al US Patent 5,406,125, Notani et al US Patent 5,294,897, Doureit et al US Patent 6,426,686, Secker et al US Patent 6,538,336, Goto et al US Patent 5,5528,074, Heckaman et al US Patent 5,023,0624, Staudinger et al US Patent

5,477,137, Kadowaki US Patent 5,057,805, Kielmeyer et al US Patent 5,583,468, Wakamore US Patent 5,162,822, Walz US Patent 5,307,237, Huang US Patent 6,646,521, Kimayaman et al US Patent 6,201,454, Notani US Patent 5,977,631 and Li US Patent 5,62,421.

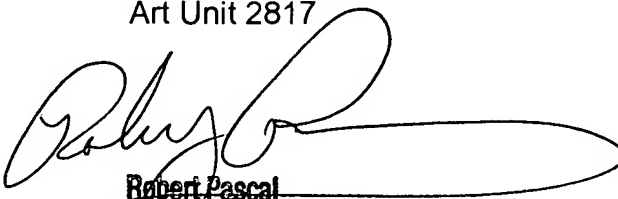
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly E. Glenn whose telephone number is (571)-272-1761. The examiner can normally be reached on Monday-Friday 7:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on (571)-272-1769. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

keg

Kimberly E Glenn
Examiner
Art Unit 2817



Robert Pascal
Supervisory Patent Examiner
Technology Center 2800